REMARKS/ARGUMENTS

CLAIM REJECTION – 35 USC § 102

Pending claims 1-6, 9, 11, 18-21, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Yoshino (2004/0071299; hereinafter "Yoshino"). Pending claims 23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Ecklund et al. (5524290; hereinafter "Ecklund").

CLAIM REJECTION – 35 USC § 103

Pending claims 7-8, 12-17, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshino in view of Wiser et al. (7016746; hereinafter "Wiser"). Pending claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshino in view of Montag et al. (2004/0032959; hereinafter "Montag"). Pending claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiser in view of Yoshino.

INDEPENDENT CLAIMS 1, 18, 23, AND 27

Independent claim 1 has been amended to incorporate the limitations originally recited in dependent claims 2 and 6. Independent claim 18 has been amended to incorporate the limitations originally recited in dependent claims 19 and 21. Similar limitations have also been incorporated in independent claims 23 and 27. Accordingly, claims 2-3, 6, and 19-21 have been cancelled.

It is respectfully submitted that the cited references, either individually or in combination, do not disclose at least the following limitations recited in the amended independent claims 1, 18, 23, and 27: (1) assigning a priority to each of the one or more filters in the classification, and (2) limiting the number of the one or more filters in the classification to not more than m based on the priority assigned to each of the plurality of the predetermined filter types in the classification. (Please note that these two limitations were originally recited in dependent claims 6 and 21.)

The outstanding office action indicates that Yoshino discloses the above two limitations. This position is respectfully traversed. It is respectfully submitted that nowhere

in Yoshino, such as paragraphs 16, 61, and 182 and Fig. 11 or anywhere else, discloses assigning priority to each of the filters used and limiting the number of filters based on their respective assigned priority level.

Yoshino discloses method and apparatus for *adjusting* the frequency characteristic of a multi-band audio signal based on target frequency characteristic, i.e., equalizing. (See Yoshino, Abstract.) More specifically, an audio signal is divided into *one fixed-level* band and *one or more variable-level* bands. Then, each of the *variable-level* bands is *adjusted* based on the single *fixed-level* band with respect to the target frequency characteristic. (See Yoshino, paragraphs 14-16.) For example, if the original audio signal has a total of 10 bands, then 1 band is chosen as the fixed-level band and remaining 9 bands are designated as variable-level bands. (See Yoshino, paragraph 61.) Similarly, if the original audio signal has a total of 6 bands, then 1 band is the fixed-level band and the remaining 5 bands are the variable-level bands. (See Yoshino, paragraph 196.)

With Yoshino, there is *no* maximum limitation on how many bands the audio signal may be divided into. If a signal has a total of n bands, then *one* of the n bands will be selected as the fixed-level band and the remaining (n-1) of the n bands will be designated as the variable-level bands.

Subsequently, *each* of the variable-level bands is adjusted, i.e., enhanced or attenuated, based on the single fixed-level band. (See Yoshino, paragraph 64.) More specifically, the *relative* levels of signal components in variable-level bands are calculated based on a level of a signal component in the fixed-level band. (See Yoshino, paragraphs 194-195.)

Yoshino describes using band-pass filters to divide an audio signal into a plurality of frequency bands. (See Yoshino, paragraph 49.) Each band-pass filter is designed to pass only frequency components within a certain *range*, thus dividing the audio signal into different bands of different frequency ranges. (See Yoshino, paragraphs 156-159.)

With Yoshino, there is no limitation on the number of filters that may be used. Furthermore, the band-pass filters are not prioritized, such that when the number of filters *exceeds* a predefined maximum number, the filters with lower priority are eliminated. The band-pass filters are used to *divide* an audio signal into multiple frequency bands, not to *eliminate* any bands.

Similarly, Ecklund (referring to rejection of claim 23) describes an adaptive graphic equalizer having various ordinarily fixed parameters that are automatically altered. (See Ecklund, Abstract.) Ecklund specifically states that, "There can be virtually *any number* of these bandpass filters, through from three to seven are typical." (See Ecklund, col. 3, lines 30-31; emphasis added.) Thus, Ecklund does not place any limitation on the number of filters used. Furthermore, Ecklund does not assign any priority to different types of filters, since only one type of filter, i.e., band pass filter, is used.

In contrast with both Yoshino and Ecklund, with the present application, the filters are used to *reduce* the number of bands in the original equalizer settings so that a media player with limited resources may be able to handle the equalizer settings by *approximating* the original settings. As recited in the amended independent claims 1, 18, 23, and 27, there is a maximum number, m, of filters and m is not more than the original number of bands, n, in the equalizer settings. The number of filters, when it exceeds m, is reduced based on their respective priority, i.e., by eliminating those filters with lower priority. (See present application, paragraphs 40 and 47.)

Because the cited references do not disclose every limitation recited in independent claims 1, 18, 23, and 27, these claims are patentably distinct from the cited references.

INDEPENDENT CLAIM 13

With respect to independent claim 13, it is respectfully submitted that the cited references, either individually or in combination, do not disclose at least the following recited limitations: (a) examining the equalizer setting values other than the first set for approximate correlation to at least a portion of a frequency response of a parametric type filter; and (2) selecting the parametric type filter if a second set of the equalizer settings approximately correlate.

The outstanding office action indicates that Yoshino, in paragraphs 61 and 64, discloses the usage of a parametric filter. However, Yoshino does not address any filter usage in paragraphs 61 and 64. Instead, Yoshino discloses adjusting each of the variable-level bands based on a fixed-level band.

Elsewhere in Yoshino, paragraphs 154-169 describe using a band-pass filter to *divide* the audio signal into multiple frequency bands of different frequency ranges. However, a band-pass filter differs from a parametric filter. In claim 13 of the present invention, the

equalizer settings already have n-bands, and some of the settings are *correlated* to the parametric filter. Thus, the parametric filter is not used to *divide* the equalizer settings into multiple bands since the equalizer settings already have n bands.

Because the cited references do not disclose every limitation recited in independent claim 13, claim 13 is patentably distinct from the cited references.

DEPENDENT CLAIMS

All remaining dependent claims depend either directly or indirectly from independent claims 1, 13, 18, 23, and 27 and are therefore also believed to be allowable. Further, these dependent claims recite additional limitations that when considered in the context of the claimed invention further patentably distinguish the art of record.

For example, claim 8 recites that not more than one low-shelf and not more than one high-shelf filter is used in the classification step. The outstanding office action indicates that Wiser, at col. 8, lines 50-55, discloses this limitation. However, Wiser, at col. 8, lines 50-55, states that, "Each of type fields 504A-D contains data specifying one of three types of filters, namely, a low shelf filter, a band-pass filter, or a high shelf filter, *for each respective one of the four filters*." (Emphasis added.) If there is a low shelf filter for each one of the *four* filters, then they may be four low shelf filters or four high shelf filters, not one.

CONCLUSION

In view of the foregoing, it is believed that all pending claims are allowable and respectfully request a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Should any fee be required for any reason related to this document, the Commissioner is hereby authorized to charge said fee to Deposit Account No. 50-0388, referencing Docket No. APL1P306.

Respectfully submitted,
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